

# FINAL LIST OF ABSTRACTS ALONG WITH AUTHORS FOR THE PRESENTATION IN CMDAYS 2015 SYMPOSIUM

P: Poster Presentation(width 3ft X height 4ft)

O: Oral Presentation (15 minutes)

I: Invited Talk (45 minutes)

NAME	TITLE OF THE ABSTRACT	SHORT AFFILIATION	Presentation MODE
Prof. Sushanta Duttagupta	Coherence versus Decoherence-- a few examples from condensed matter	Visva-Bharati	PLENARY
Prof. A. K. Raychaudhuri	Control of physical properties of functional oxides by a gate with Electric Double Layer Dielectric	SNBNCBS, Kolkata	I-1
Prof. Pushan Ayyub	Complexity in Elementary Systems	TIFR, Mumbai	I-2
Prof. Swapan K Ghosh	Energy Density Functional Approach for Modelling Functional Materials for Energy Applications	BARC, Mumbai	I-3
Prof. Abhishek Dhar	Understanding anomalous transport in one-dimensional systems through fluctuating hydrodynamics	IISc, Bangalore	I-4
Prof. G. P. Das	Half a Century of Density Functional Theory and its role in <i>ab initio</i> Design of Materials	IACS, Kolkata	I-5
Abhra Giri	Lacunarity analysis of 3D sedimentary rock structure and relation with correlation dimension	Gurudas College Kolkata	P-62
Ajanta Halder	Influence of solvent on the behaviour of single walled carbon nanotubes in Methyl Red dye based photovoltaic devices	J.U, Kolkata	P-67
Ajay Kumar Ghosh	Impact of rare earths on the conduction mechanism in underdoped RE-123 superconductors around the phase transition	J.U, Kolkata	P-79
Amal Kumar Das	The Cantilever Beam Magnetometer: A Versatile Technique for magnetic characterization	IIT,Kharagpur	O-7
Amrita Deka	Contact angle measurements on unconventional surfaces using nanotitania based nanofluids	Tezpur University	P-84

Amrita Basu	Preparation and study of unilamellar vesicles and supported planar phospholipid bilayer: A model system for biological membranes	J.U, Kolkata	P-87
Anupam Kumar	Phase diagram of a binary mixture of two-dimensional quadrupolar nematic	ISM, Dhanbad	P-35
Aparna Saha	Half-cycle pulse induced Ionization of Rydberg atoms	Visva-Bharati	P-82
Archana Kumari	Magnetic and Dielectric Property of Co and Mn doped $\text{Fe}_2\text{WO}_6$	IIT, Kharagpur	P-44
Arunangsu Banerjee	Vacancy Induced Magnetism in Nano-crystalline $\text{BaTiO}_{3-\delta}$ .	WBSU, Barasat	O-27
Ashwani Kumar	Thermodynamical and physical properties of liquid alloy: a first principle study / a study of size dependent properties of nanoparticle	NDA, Pune	P-11
Ashim Kumar Biswas	Spectral response of a p+ n n+ back-surface- field silicon solar cell and its comparison with the conventional p+ n junction solar cell	K.U, Kalyani	P-85
Atanu Nandy	Flat band analogues and flux driven extended electronic states in a class of geometrically frustrated fractal networks	K.U, Kalyani	P-72
Averi Banerjee	Variation in Scission and/or Cross-Linking of Polymer Molecules by High Energy Gamma Radiation: Analysis by a Computer Simulation Study	Techno College/ JU	P-4
Avigyan Chatterjee	The minority carrier profile and spectral response of a Schottky- barrier solar cell considering doping dependent device parameters	K.U, Kalyani	P-83
Babusona Sarkar	Effect of phase segregation on transport and magnetic properties of $\text{SrRuO}_3$	IASC, Kolkata	P-27
Barnita Paul	Difference in n-type doping efficiency between Group III (Al, Ga, In)doped ZnO thin films	IIT, Kharagpur	P-29
Basanta Kumar Sahoo	Study of effective de-Gennes factor on mixed rare- earth Nickel borocarbide superconductors	Gov.College Angul, Odisha	P-43
Bibekanda Panda	Theoretical study of multigap in pnictide composite superconductor $\text{Ba}_{0.6}\text{K}_{0.4}\text{Fe}_2\text{As}_2$	K.K. Jr. College, Odisha	P-90

Bidhan Chandra Bag	Non equilibrium temperature and its bounds	Visva-Bharati	O-5
Bidisa Chattopadhyay	Study of magneto-dielectric coupling in copper based divanadate	Lady Brabone College, Kolkata	P-22
Biswajit Dey	DNA-hydrogel for Ag-NPs synthesis	Visva-Bharati	P-69
Biswajit Dalal	Dopant induced structural phase transition and corresponding electric and magnetic properties of $\text{LaCoO}_3$	IACS, Kolkata	P-40
Biswajit Roy	Pattern formation in an evaporating droplet of a Polymer-inorganic salt complex fluid	J.U, Kolkata	P-60
Brahmananda Sethi	Static critical phenomena in amorphous $\text{Fe}_{(89-x-y)}\text{Zr}_{(11)}\text{B}_x\text{Co}_y$ ( $x=10$ and $y=5,10$ ) alloy ribbons	IIT, Guwahati	P-36
Bratati Das	Solid State Reaction in one Metallocene Compound	Visva-Bharati	P-51
C. Dhanasekhar	Magnetocaloric and Electrocaloric effect in Geometrically frustrated $\text{CaBaCo}_4\text{O}_7$	IIT, Kharagpur	P-45
Debasree Chowdhury	Fabrication Of Nanoscale topographies On Ge(100) Surface By Low Energy $\text{Ar}^+$ Ion Sputtering	SINP, Kolkata	O-10
Deblina Chakraborty	Nonlinear direct current conductance in Double perovskites	CU/Scottish Church College, Kolkata	O-14
Dhananjay Bhakat	Electrical Conduction in Biopolymer Composites and Percolation Theory	V.B.U, Santiniketan	P-28
Dilip Kumar Mishra	Observation of Griffith phase in plasma sintered $\text{La}_{0.67}\text{Ca}_{0.33}\text{MnO}_3$	SAU, Bhubaneswar	O-8
Himangsu Bhaumik	Sandpile dynamics on percolation backbone	IIT,Guwahati	P-10
Jahangir Alam	Crystal-field study of low-temperature magnetic properties of the frustrated pyrochlore anti-ferromagnet $\text{Pr}_2\text{Zr}_2\text{O}_7$	K.U, Kalyani	P-47
Jyoti Saha	FT-IR and Raman vibrational study of Orthorhombic Perovskite $\text{YFeO}_3$	K.U, Kalyani	P-89
Kajari Das	Core-Shell $\text{ZnO@CuInS}_2$ Hexagonal Nanopyramids with Improved Photo-conversion Efficiency	C.U, Kolkata	O-16

Kalpataru Pradhan	LiFe <sub>2</sub> Cl <sub>n</sub> (n = 4-6) Clusters: Double-exchange Mediated Molecular Magnets	SINP, Kolkata	O-1
Kamal K. Choudhary	Enhancement in specific heat by nano-crystallization: softening of phonon frequencies	NDA, Pune	O-21
Kaustabh Dan	Mutual' Self-organization: Nanocrystal Assembly and Spontaneous Ordering in a Liquid Crystalline Matrix	SINP,Kolkata	O-17
Kunal Biswas	Characterization of synthesized graphene oxide nano - sheets and its interaction with DNA nucleotide bases by computational simulation study.	MAKAUT, Kolkata	P-70
Laksmi Kumari	Synthesis and characterization of zinc oxide nanocrystals for solar cel application	ISM, Dhanbad	P-21
L. Nirmala Devi	Study of laser assisted photofield emission from zirconium carbide (ZrC)	Mizoram University, Aizawl	O-24
Malati Majhi	Synthesis and dielectric properties of polyaniline-ZnS composites	ISM, Dhanbad	O-28
Manas Ghosh	Oscillator Strength of Doped Quantum Dots Driven by Gaussian White Noise	Visva-Bharati	P-25
Manas Kumar Roy	Dynamics of ferroelectric particle suspension in presence of electrical field	Brahmananda Keshab Chandra College, Kolkata	P-92
Manas Saha	Carrier concentration dependent optical and electrical properties of Ga doped ZnO hexagonal nanocrystals	IACS, Jadavpur	P-16
Manisha Kumari	An Investigation on Structural, Optical, and Magnetic properties of Chemically Synthesized SnO <sub>2</sub> : Fe <sup>+3</sup> nanoparticles	ISM, Dhanbad	P-33
Manisha Mondal	NIR to green upconversion in HO <sup>3+</sup> doped YMoO <sub>4</sub> phosphor	ISM, Dhanbad	P-15
Manisha Samarth	Study of electron hole liquid in a semiconductor	BRA, Bihar Univ.,Muzaffarpur	P-24
Md. Shahbaz Alam	Nanostructure evolution and optical properties of silver doped diamond-like carbon thin film on soft polymer	Aliah University, Kolkata	P-50
Molly De RayChaudhury	Quantum chemical studies on role of Residues for calcium ion binding to Calmodulin	WBSU, Barasat	O-19
Monoj Das	Properties of arm chair ZnTe nanotubes : a density functional study	V.B.U, Santiniketan	P-20

Moumin Rudra	Dielectric behaviour of $\text{Pr}_2\text{MgMnO}_6$ double perovskite oxide	NIT, Patna	O-15
Mukesh Kumar	Micro liquid semiconductor diode as a thermal power	BRA Bihar Univ. Muzaffarpur	P-23
Nantu Karak	Room Temperature Ferromagnetism in Mn doped ZnO nanoparticles synthesized by sol-gel route	V.B.U, Santiniketan	P-78
Navin Singh	Unzipping of DNA in presence of molecular crowder	BITS, Pilani	O-29
Netram Kaurav	Preparation and characterization of non-stoichiometric nickel oxide	Holkar S. College Indore	P-12
Nirmal K. Datta	Excitation in Doped Quantum Dots Insisted by Propagating Impurity	Vidyasagar College, Suri	P-6
Pabitra Mandal	Electromigration study in focussed ion beam deposited tungsten single nanowires	SNBNCBS, Kokata	O-11
Pankaj Mishra	Freezing transitions in binary mixtures of two-dimensional colloidal suspensions	ISM, Dhanbad	O-4
Paramita Dutta	Electric field induced localization phenomena in a ladder network with superlattice configuration: Effect of backbone environment	IOP, Bhubaneswar	O-31
Pradeep Kumar Choudhury	Thermodynamic Properties Molecular Fluids	R.D.S. College, Muzaffarpur, Bihar	O-9
Prajna Mukherjee	Catalytic Activities of Platinum Nanotube	V.B.U, Santiniketan	P-49
Pranabi Maji	A study on temperature dependent dielectric nature of surface modified ZnO filled PMMA nanocomposite	ISM, Dhanbad	P-41
Prashant Kumar Dey	Study of electrical properties of liquid semiconductor	KIIT University, Bhubaneswar	P-58
Purushottam Poddar	Grade of the Metallic Character of Alkaline Earth Metals	M.U, Bodhgaya	P-56
Raj Kumar Khan	Effect of carbon nanotubes on dielectric permittivity and elastic constants of a bent-core nematic liquid crystal.	C.U, Kolkata	P-52
Rajesh Kumar	Structural and transport properties of liquid semiconductor using effective pair potential method	B.R.A Bihar University, Muzaffarpur	P-61

Rajesh Mukherjee	Structural, vibrational and dielectric studies of rare earth double perovskite oxides $A_2ErSbO_6$ ( $A = Ba, Sr, Ca$ )	Ramananda Collge, Bishnupur, Bankura	P-42
Rajiv Borah	Enhanced enzyme activity and enzyme kinetics of immobilized Urease on surface functionalized Polyaniline nanofibers / Chitosan	Tezpur University, Tezpur	P-55
Rajkumar Singha	Study of electrostatic charge retention properties of self-assembled Ge/Si quantum dots	V.B.U, sanitiniketan	O-12
Rini Labar	Fabrication of n-ZnO / p-Si Nanostructure Heterojunction Diode	V.B.U, Santiniketan	P-53
Rituparna Mondal	Study on Structural, Magnetic, Hyperfine properties and Photocatalytic Activity of $Co_{0.3}Zn_{0.7}Fe_2O_4$ Nanoparticles Synthesized by Chemical Coprecipitation Followed by Mechanical Activation	J.U, Kolkata	P-73
Sujata Chakraborty	Study on the electrical and optical behaviour during steady state charge carrier interaction with traps of Malachite Green dye in different electrode system	J.U, Kolkata	P-63
Samar Chattopadhyay	Electron states and two terminal transport in a quasiperiodically buckled quasiperiodic chain	Jhargram Raj College, Midnapur	O-32
Sanat Karmakar	Interaction of monovalent ions with phospholipid membranes : a zeta potential study	J.U, Kolkata	O-13
Sanchayita Nag	Effect of Er ion on the structural, magnetic and dielectric properties of as- synthesized $Ni_{0.5}Zn_{0.5}Fe_2O_4$ system	IEST, Shibpur	P-86
Shantanu Roy	Hyperfine Interaction of $^{141}Pr$ and $^{143}Nd$ in fluoride and chloride hosts	J.U, Kolkata	P-48
Santosh Kumar Parida	Structural and Magnetic behavior of Spinel $CuMn_2O_4$ synthesized by co-melting technique	Siksa O anusandha Univ. Bhubaneswar	P-30
Saptarshi Pal	Defect identification by low temperature photoluminescence and Raman spectroscopy in disordered granular ZnO	C.U, Kolkata	P-64
Shrabani Mondal	Low temperature anatase to rutile phase transition and electrochemical properties of $TiO_2$ nanoparticles	ISM, Dhanbad	P-76

Sashi Sekhar Behera	Effect of energy-gap on $k \cdot \pi$ electronic structure of lead and tin tellurides and many-body renormalization of the effective mass	Berhampur University Berhampur	P-57
Saswata Haldar	Electronic structure and X-ray photoelectron spectroscopic characterization of double-perovskites $A_2SmTaO_6$ (A= Ba, Sr, Ca)	Bose Institute, Kolkata	P-65
Soumendu Datta	Computational screening of perovskite metal oxides for optimal solar light capture	SNBNCBS, Kolkata	O-23
Saurabh Jyoti Hazarika	Production and Physical Characterization of Titanium Disulphide Nanopowder	Tezpur University, Tezpur	P-32
Sayantani Biswas	The contribution of the different regions of a buried emitter solar cell to the overall spectral response	K.U, Kalyani	P-80
Sayantani Das	Structural and Dielectric Properties of CdTe Nanoparticles	C.U, Kolkata	P-9
Sayan Das	Characterization and Transport Properties of Sn Doped BiCuSeO	IISc, Bangalore	P-19
Shrabani Mondal	Diffusion induced stabilization of transition state	Visva-Bharati	P-17
Shikha Dwivedi	Structures in a binary mixture of Gay-Berne mesogens	ISM, Dhanbad	O-22
Shreyasi Pal	Open air scalable synthesis of ZnO tetrapod: Enhanced electron emission performance via graphene attachment	J.U, Kolkata	O-25
Shibsankar Dutta	Optical properties of Reduced Graphene oxide-CuO nano composite synthesized by simple chemical route	Presidency University, Kolkata	P-31
Sirshendu Bhattacharyya	Magnetization Transport in One Dimensional Transverse Ising Chain	R.R.R Mahavidyalaya, Hoogly	P-7
Smruti Ranjan Sahoo	A Density Functional Study of the Charge Transport Properties in Fluorinated Naphthalene	ISM, Dhanbad	P-37
Somasri Hazra	Viscoelastic modeling of the rheology of Laponite gel using generalized calculus	J.U. Kolkata	P-66
Somnath Bhattacharya	Magnetic susceptibilities and energy levels of $Kd_{3f_{10}}$	J.U, Kolkata	P-5

Somrita Ray	Microscopic theory of heat transfer between two Fermionic thermal baths mediated by a spin system	V.B.U, Santinikrtan	P-71
Sourav Kundu	Conformation Dependent Electronic Transport in a DNA double helix	SINP, Kolkata	O-30
Srabantika Ghosh	Role of Zn-related defect states for $d_0$ ferromagnetism in undoped ZnO nanoparticles	C.U, Kolkata	P-1
Sripada Haldar	Some room temperature FLC mixture formulation and their characterization	N.U.	P-75
Subhankar Ghosh	Optical properties of $Gd_2O_3$ doped sodium zinc tellurite glasses	St. Xaviers College Kolkata	O-26
Subhasish Roy	Use of Genetic Algorithm for fitting ac susceptibility data for BFMO	Visva-Bharati	P-91
Subhasree Pradhan	Orbital Effects of Strong Magnetic Field on a 2-D Holstein Polaron	IIT,Kharagpur	O-33
Subhrajyoti Dey	Beating Superparamagnetism to Retain Stable Magnetic Ordering in Nanosized $Ni_{0.5}Zn_{0.5}Fe_2O_4$ Synthesized by High Energy Ball-Milling Method	J.U, Kolkata	P-74
Subhrangsu Taran	Investigation of Gaint magnetocapacitive effect in $CdCr_2S_4$ : Study of possible local lattice distortion	Kalyani Mahavidyalaya, Kalyani	P-39
Subir Kumar Patla	Analysis of Pore-Size and Distribution of Gamma Irradiated Poly [Ethylene Oxide]: A Comparative Approach Using BET and SEM and Correlation with Film Impedance	J.U, Kokata	P-81
Subrata Kumar Shadangi	Theory of k.p electronic structure and some related properties of ZnO	Berhampur University Berhampur	O-20
Sudeshna Sircar	Simulation of crack patterns formed in colloidal clay solutions in the presence of an ac field	J.U, Kolkata	P-59
Sudin Ganguly	Interplay of spin dependent disorder with different spin orbit interactions in a four terminal junction device	IIT, Guwahati	P-38
Sujata Tarafdar	Using Generalized Calculus to solve Problems in Condensed Matter Physics	J.U, Kolkata	O-18
Sultana Tajmili Hasnahena	Decorated carbon nanotubes as nano sensors for selective detection of $NH_3$ and CO gases	SINP, Kolkata	P-13
Suman Chowdhury	A real-space study of random defects in solids : application to disordered graphene	C.U, Kolkata	P-46



Suman Sinha	Study of giant magnetoimpedance in positive magnetostrictive glass-coated amorphous microwires	Sarsuna College, Kolkata	P-77
Susobhan Paul	Ground state energy and scaling behaviour of spin gap for the bond alternating spin-1 XXZ Heisenberg chain	J.U, Kolkata	O-2
Swapan Kumar Chakrabarti	Activity of alkali metals in their molten amalgams	Tribhuvan University Nepal	P-18
Swati Nawami Aideo	Structural colour in the wings of white admiral butterfly	Tezpur University, Tezpur	P-34
Tania Basu	Influence of Gamma Irradiation on Gelatin based Solid Polymer Electrolyte: Study of electrical properties and Anomalous Diffusion Analysis.	J.U, Kolkata	P-2
Tarun Kumar Dey	Transport Properties of Associating Fluids	B.R.A. Bihar University, Muzaffarpur	P-54
Tajkera Khatun	Topology of Crack Patterns by Varying Layer Thickness of Film	Charuchandra College, CU Asst. Professor	P-8
Tilak Narayan Ghosh	Dielectric response of Polycrystalline $La_{1-x}yY_xCa_xMnO_3$ Manganite	Vidyasagar University, Midnapur	P-14
Trilochan Bagarti	Trapping reaction problem in a random environment	HRI, Allahabad	O-3
Tushar Kanti Bose	Influence of particle shape and interaction anisotropies on the ferroelectric liquid crystalline order in systems of dipolar ellipsoids	C.U, Kolkata	O-6
Utsav Chakraborty	Aggregation behavior and adsorption, intercalation properties of Methylene Blue onto Montmorillonite clay : a theoretical and experimental study	J.U, Kolkata	P-68
Vandana Grace Masih	Modification in the optical band gap of ZnO thin films using Cu dopant	Lucknow University	P-88
Yatra Mohan Jana	FT-IR and Raman vibrational spectroscopic studies of $Y_2FeSbO_7$ pyrochlore	K.U, Kalyani	P-26
Yugal Kishore Mohanta	Bio-inspired synthesis of electronically charged silver nano-particles by <i>Cleistanthus collinus</i> leaf extract with potential antimicrobial properties	North Orissa University, Baripoda	P-3